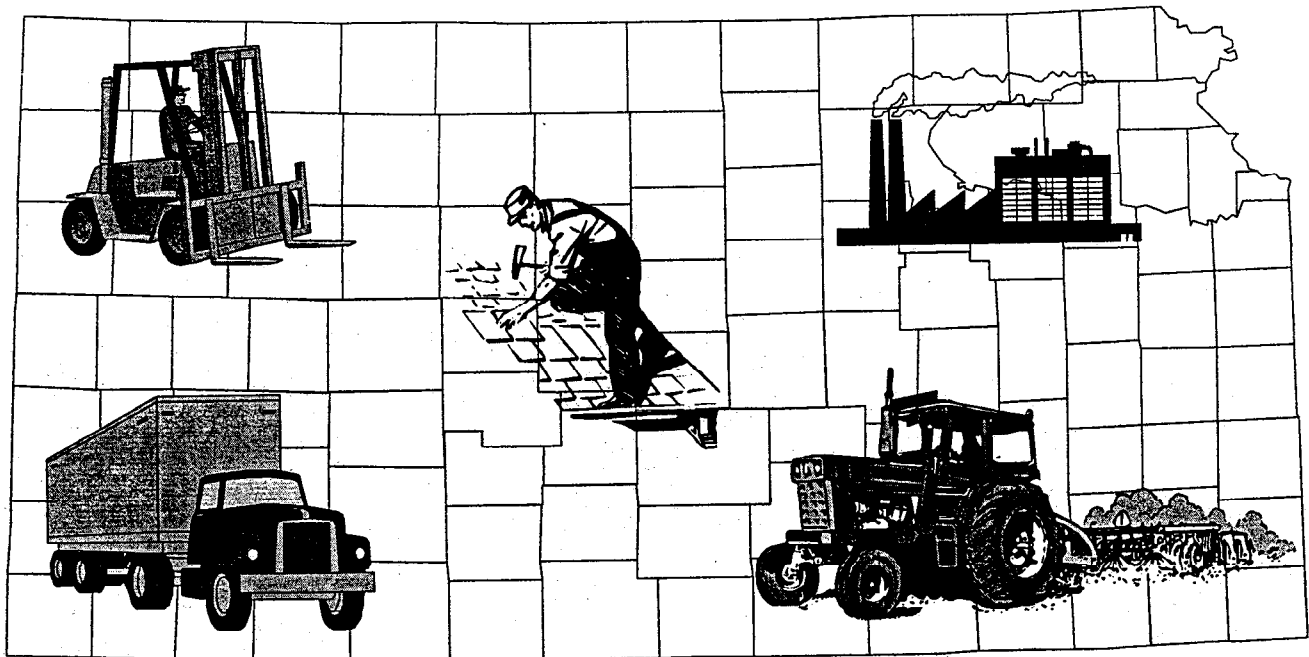


# FATAL OCCUPATIONAL INJURIES KANSAS, 1999



---

**Kansas Department of Health and Environment**  
**Landon State Office Building, 900 SW Jackson, Topeka, KS 66612**  
**<http://www.kdhe.state.ks.us/hci>**

# **FATAL OCCUPATIONAL INJURIES KANSAS, 1999**

**Bill Graves, Governor**

**Clyde D. Graeber, Secretary  
Kansas Department of Health and Environment**



**Prepared by  
Kansas Department of Health and Environment  
Center for Health and Environmental Statistics  
Office of Health Care Information**

**In cooperation with  
the U.S. Department of Labor Bureau of Labor Statistics**

**Kansas Department of Human Resources  
Division of Worker's Compensation**

**and**

**Kansas Department of Transportation**

**June, 2001**

## TABLE OF CONTENTS

	Page
Introduction .....	1
Highlights, 1991-1999 .....	5
Demographic Highlights .....	7
Industry .....	9
Occupation .....	10
Event or Exposure .....	12
Preparation Credits .....	31

### SECTION I, CHARTS

1. Number of Fatal Occupational Injuries, Kansas, 1991-1999 .....	5
2. Number of Fatal Occupational Injuries by Industry, Kansas, 1995-1999 .....	6
3. Fatal Occupational Injuries by Employee Status, Kansas, 1999 .....	7
4. Fatal Occupational Injuries by Sex, Kansas, 1999 .....	7
5. Fatal Occupational Injuries by Race, Kansas, 1999 .....	8
6. Fatal Occupational Injuries by Age-Group, Kansas, 1999 .....	8
7. Fatal Occupational Injuries by Industry, Kansas, 1999 .....	9
8. Fatal Occupational Injuries by Occupation, Kansas, 1999 .....	10
9. Fatal Occupational Injuries by Type and Place, Kansas, 1999 .....	11
10. Fatal Occupational Injuries by Event or Exposure, Kansas, 1999 .....	12
11. Fatal Occupational Injuries by Month of Injury, Kansas, 1999 .....	13
12. Fatal Occupational Injuries by Day of the Week, Kansas, 1999 .....	13
13. Fatal Occupational Injuries by Time of Injury .....	14
14. Number of Source Documents by Type .....	14

## **SECTION II, TABLES**

1. Fatal Occupational Injuries by Selected Characteristics, Kansas, 1999 .....	17
2. Fatal Occupational Injuries by Industry, Kansas, 1991-1999 .....	18
3. Fatal Occupational Injuries by Industry, Kansas, 1999 .....	19
4. Fatal Occupational Injuries by Occupation, Kansas, 1999 .....	20
5. Fatal Occupational Injuries by Nature of Injury, Kansas, 1999 .....	21
6. Fatal Occupational Injuries by Part of Body, Kansas, 1999 .....	22
7. Fatal Occupational Injuries by Event or Exposure, Kansas, 1999 .....	23
8. Fatal Occupational Injuries by Source of Injury, Kansas, 1999 .....	24

## **SECTION III, APPENDIX**

Appendix .....	28
----------------	----

## INTRODUCTION

Fatality information appearing in this report was collected through the Census of Fatal Occupational Injuries (CFOI) program, a cooperative agreement between the U.S. Department of Labor, Bureau of Labor Statistics (BLS) and the Kansas Department of Health and Environment, Center for Health and Environmental Statistics, Office of Health Care Information. The CFOI program was developed by BLS to provide a comprehensive, accurate, descriptive and accessible census of work related fatalities. The program was piloted for the nation in 1988 and Kansas joined the program in 1991. The information presented in this publication covers injury fatalities that occurred in Kansas in 1999.

Under the CFOI program, the incident leading to the death, but not necessarily the death itself, must have occurred in that state (occurrence data). For example, if a worker injured in a work-related incident in Kansas were to die in another state, the case would still be in scope for Kansas. On the other hand, a worker who dies in Kansas from an injury suffered in another state would not be included in the statistics for Kansas but rather in the state in which the injury occurred.

Although CFOI was developed to obtain an accurate count of fatal injuries, the program also collects information on occupational illnesses. Because of the latency period of many occupational illnesses, it is difficult to compile an accurate count using CFOI methodology. Also, as fatal illnesses tend to be disputed as to work-relationship, a census is not attainable within the time frame set forth in the CFOI program.

Information illustrated by the CFOI program are useful in:

- ▶ tracking trends of workplace hazards
- ▶ targeting high hazard work conditions and practices
- ▶ establishing priorities for safety inspections and follow-up visits
- ▶ identifying standards requiring stricter enforcement
- ▶ finding areas where new standards may be needed

Economists, statisticians, epidemiologists, safety specialists, business and government executives, news media and program managers, as well as many other groups and individuals have found this publication to be quite useful.

One of the criterion for publication requires that three or more incidents of a fatality must have occurred in a specific category before they may be published in a table. If numbers are omitted, and noted as such, it is because they did not meet publication requirements.

Copies of this report, as well as additional information, may be obtained by contacting the Kansas Department of Health and Environment (KDHE) at the address, phone, or fax number listed below. This report is also available in an electronic form from KDHE or by accessing the KDHE home page at "<http://www.kdhe.state.ks.us/hci>".

If you desire a copy of this publication in an alternative form because of a disability, contact our office at the address listed below:

Kansas Department of Health and Environment  
Center for Health and Environmental Statistics  
Office of Health Care Information  
Occupational Injury Surveillance Section  
Landon State Office Building  
900 SW Jackson Suite 1002 North  
Topeka, KS 66612-1290  
Phone: 785-296-1058 Fax: 785-291-3612

## **SECTION I**

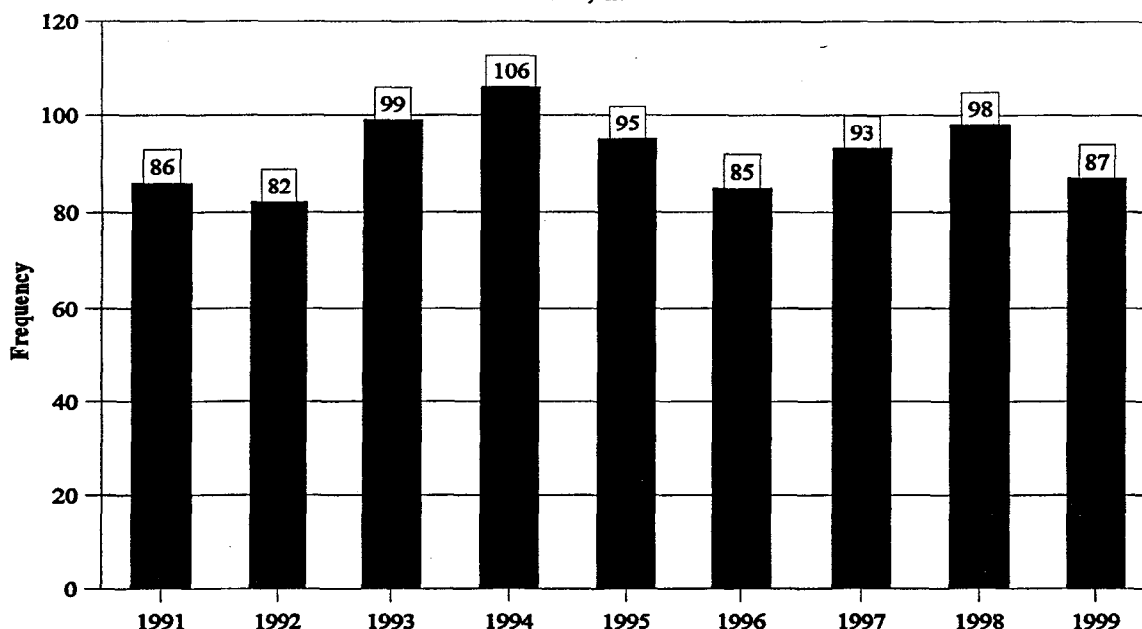
### **CHARTS**

## HIGHLIGHTS, 1991- 1999

There were 87 fatal occupational injuries that occurred in Kansas in 1999. Looking at historical data, the 1999 figure was slightly higher than the 86 fatalities in 1991, ranking the 1999 total the fourth lowest in Kansas since the CFOI program began in 1991. Between 1991-1999, the highest number of fatalities occurred in 1994 with 106 fatalities, partly due to the high number of deaths in retail trade (15). Prior to 1999, there were three other years with occupational fatality totals under 90 in Kansas and they were 1991, 1992, and 1996. (Chart 1, Table 2)

**Chart 1. Number of Fatal Occupational Injuries**

**Kansas, 1999**



The agriculture, forestry and fishing industry experienced a slight decrease in the number of fatalities in 1999 with 22 and tied with 1997, this is in contrast to a noted increase over the last four years. The number of deaths has ranged from a low of 17 in 1995 to a high of 36 in 1993. (Chart 2, Table 2, Table 3)

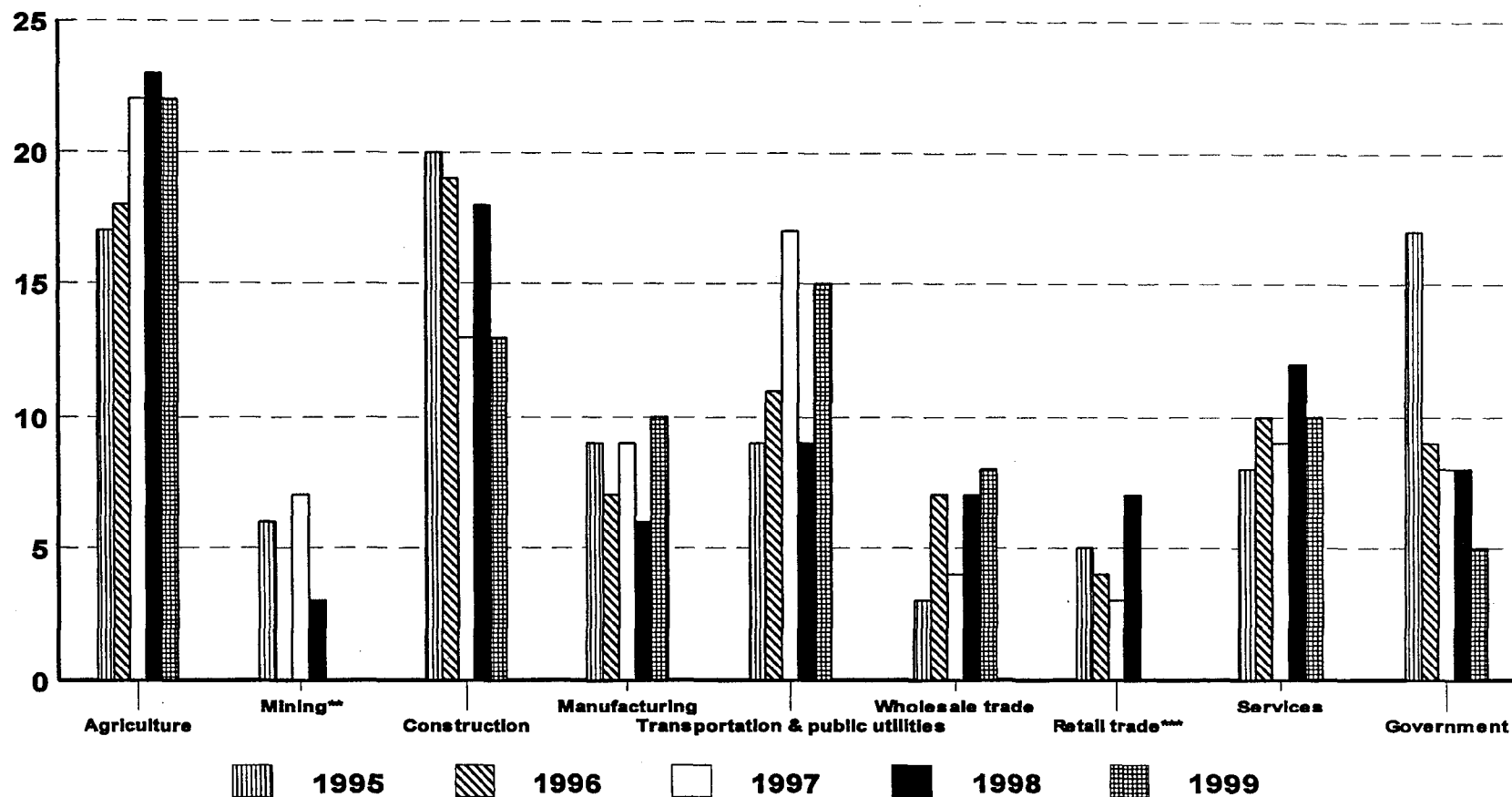
In 1999, there were no fatalities reported in the mining industry, as well as in 1996. This industry has been slowly declining, but has experienced as many as 8 work-related deaths in 1993. (Chart 2, Table 2, Table 3)

The number of fatal occupation injures in the wholesale trade industry increased to a high of 8 fatalities in 1999 from a low of less than 3 in 1993. (Chart 2, Table 2, Table 3)

Transportation and public utilities industries in Kansas accounted for 15 deaths in 1999. This was the second highest total for the group over the last nine years with the high being recorded in 1997 at 17 deaths. (Chart 2, Table 2, Table 3)

The number of fatal occupational injuries in government is the lowest ever with 5 fatalities in 1999 down from the high of 17 in 1995. (Chart 2, Table 2, Table 3)

**Chart 2. Number of Fatal Occupational Injuries  
By Industry\*, Kansas 1995 - 1999**



\* Finance, insurance, and real estate did incur 3 deaths in 1998 but are not represented because less than three deaths occurred yearly from 1994-1997.

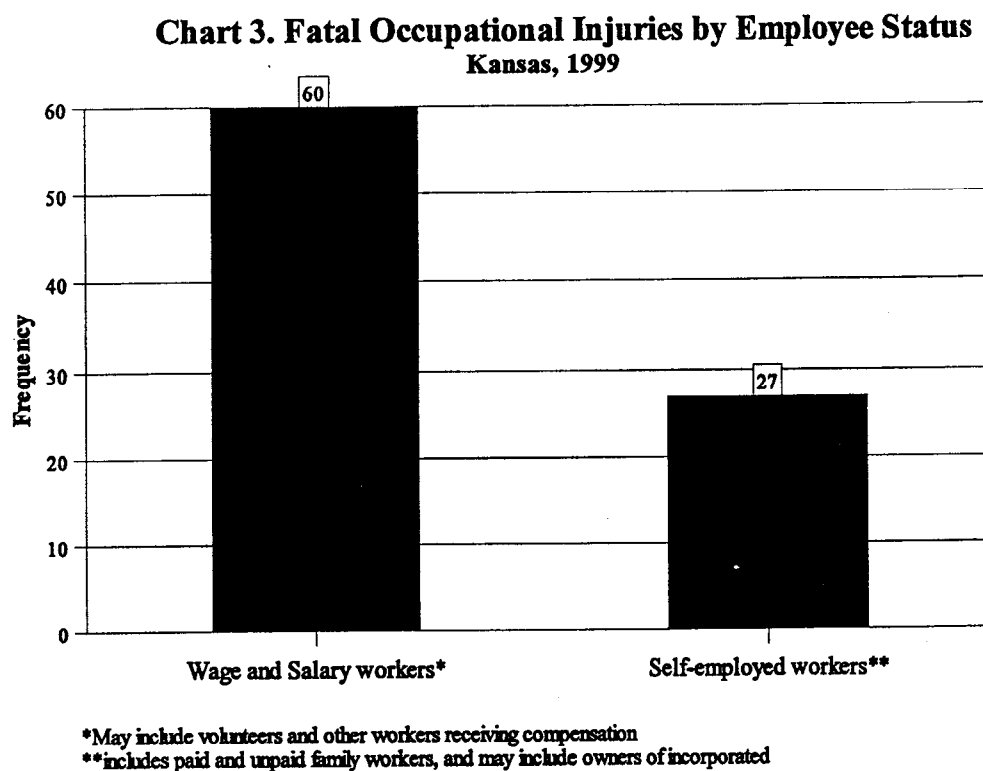
\*\* Mining is not represented in 1996 because less than 3 deaths occurred that year and there were no deaths in 1999.

\*\*\* Retail trade not represented because less than three deaths occurred in 1999.

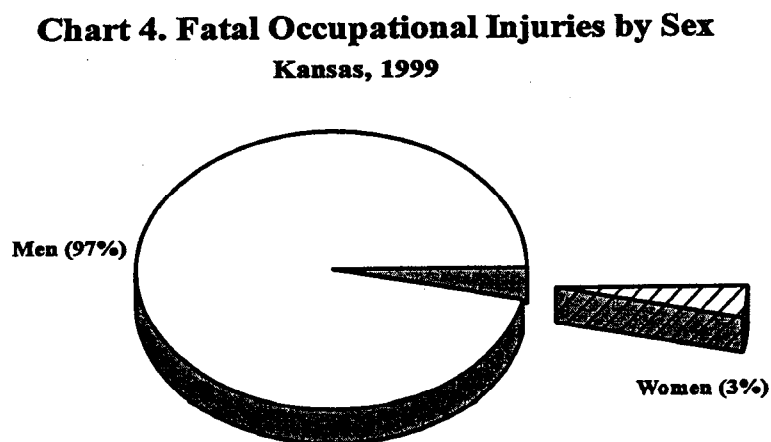


## **DEMOGRAPHIC HIGHLIGHTS**

Wage and salary worker was the employee status in 69% of the occupational fatalities in the state in 1999 with 60 deaths. The remainder or 31% were self-employed workers with 27 deaths. (Chart 3, Table 1)



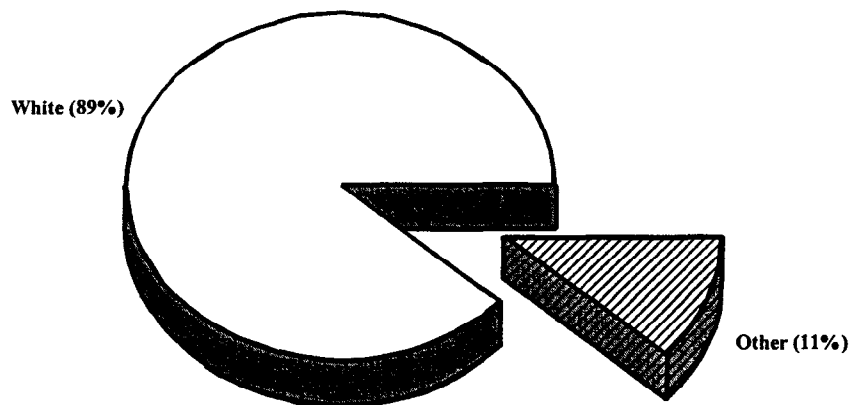
Occupational fatalities occurred much more often to men than to women in Kansas during 1999. The 84 male deaths represented 97% of all occupational fatalities in the state with females accounting for the remaining 3% or 3 deaths. (Chart 4, Table 1)



The CFOI tallies for 1999 indicated that 89% involved white victims and accounted for 77 deaths. Five workers were Hispanic origin and may have been of any race. (Chart 5, Table 1)

**Chart 5. Fatal Occupational Injuries by Race**

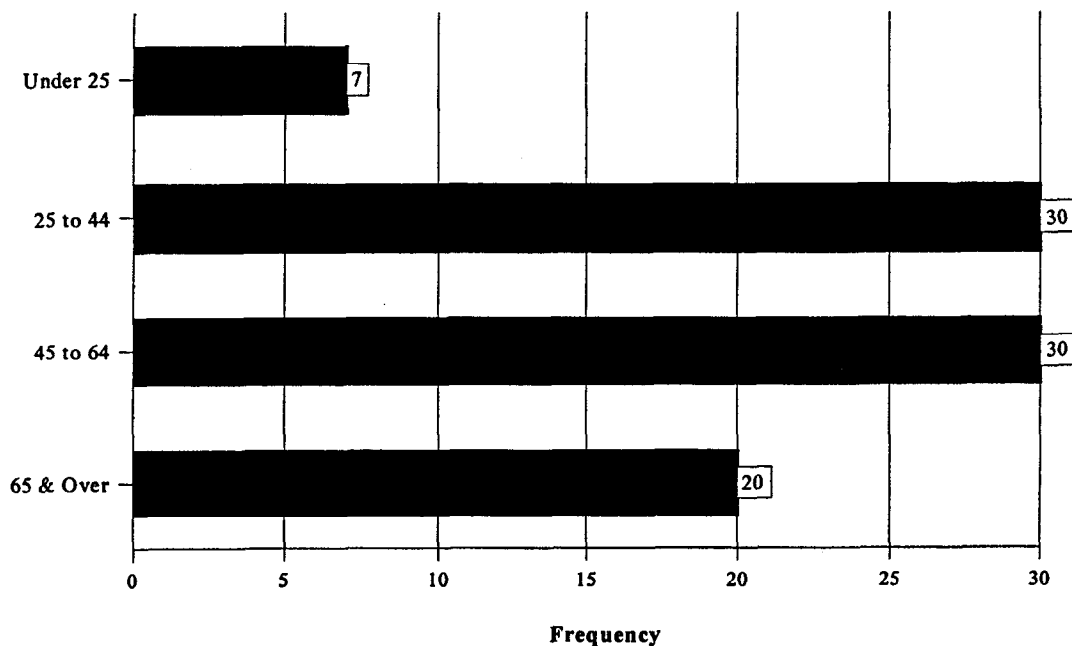
Kansas, 1999



The greatest number of fatal occupational injuries (30) occurred in both the 25 to 44 age-group and the 45 to 64 age-group, accounting for 68% of all work related fatalities in 1999. Ranking third was the 65 and over age-group with 20 deaths, or 23% of the total. Last, the 25 and under age-group had the least with 7 deaths, and 8% of the total. (Chart 6, Table 1)

**Chart 6. Fatal Occupational Injuries by Age-Group**

Kansas, 1999

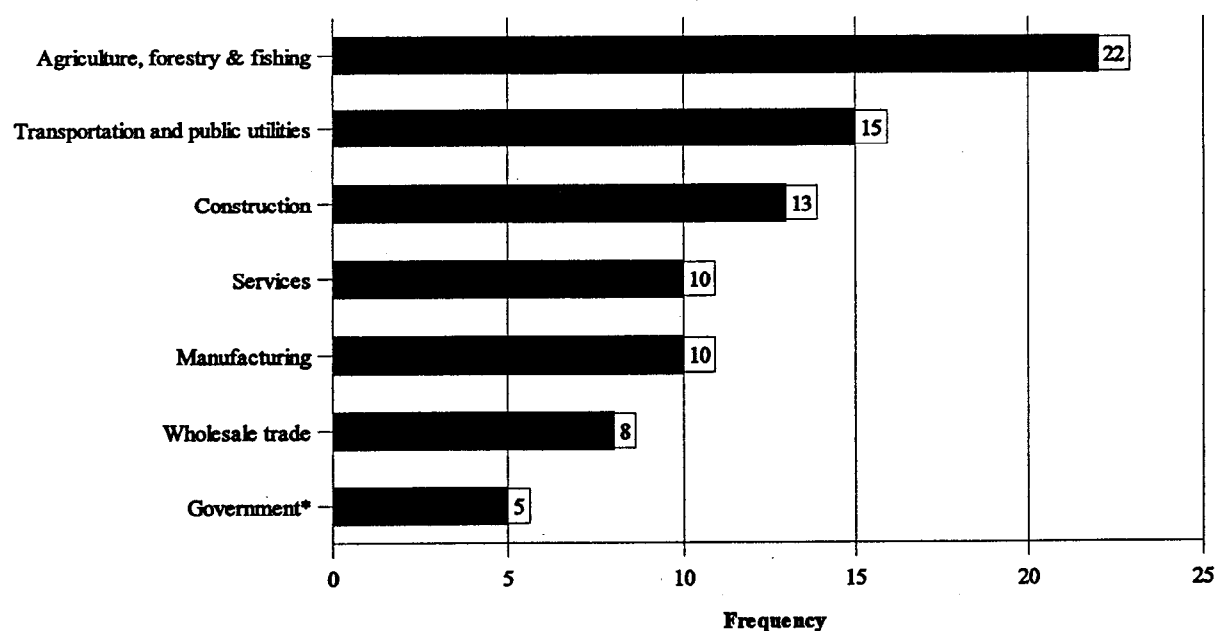


## INDUSTRY

Although falling slightly below 1998 and tying with 1997 figures, agriculture, forestry and fishing still remains the most hazardous industry in Kansas for 1999 with 22 deaths, or 25% of the work related total. Sixteen of the 22 deaths in this industry occurred in the agriculture production of crops, while the agriculture production of livestock claimed 4. (Chart 2, Chart 7, Table 2, Table 3)

Transportation and public utilities industries had the second highest number of fatal occupational injuries in 1999 with 15. Ten of the 15 were in trucking and warehousing, while 3 were in electric, gas and sanitary services. Prior to 1999, the highest number of fatalities was in 1997 with 17, while the lowest was in 1995 and 1998 with only 9 fatalities. (Chart 2, Chart 7, Table 2, Table 3)

**Chart 7. Fatal Occupational Injuries by Industry**  
**Kansas, 1999**



\*Includes fatalities to workers employed by governmental organizations regardless of industry.

The construction industry ranked third with 13 occupational deaths in 1999. Special trade contractors had the majority of those deaths accounting for 10 of the total. The remaining 3 deaths occurred in heavy construction. (Chart 2, Chart 7, Table 2, Table 3)

The services industry and manufacturing industry both accounted for 10 fatal occupational injuries in 1999. Services industry accidents claimed 9 lives in 1999, with 3 in business services. Services had the highest number of fatal accidents recorded in 1998 with 12 and the lowest in 1997 with 5. The manufacturing industry experienced an unusual high number of fatalities in 1999, with 10 deaths and had as low as 3 in 1993. Manufacturing remained fairly steady in the number of deaths prior to 1999. (Chart 2, Chart 7, Table 2, Table 3)

The wholesale trade industry claimed 8 lives in 1999. Four of the 8 deaths in this industry occurred in durable goods, while non-durable goods claimed 4 lives. (Chart 2, Chart 7, Table 2, Table 3)

Government workers experienced 5 fatalities in 1999, the lowest ever for this industry in Kansas. This industry has been declining since 1995 which was the high with 17 work-related fatalities. (Chart 2, Chart 7, Table 2, Table 3)

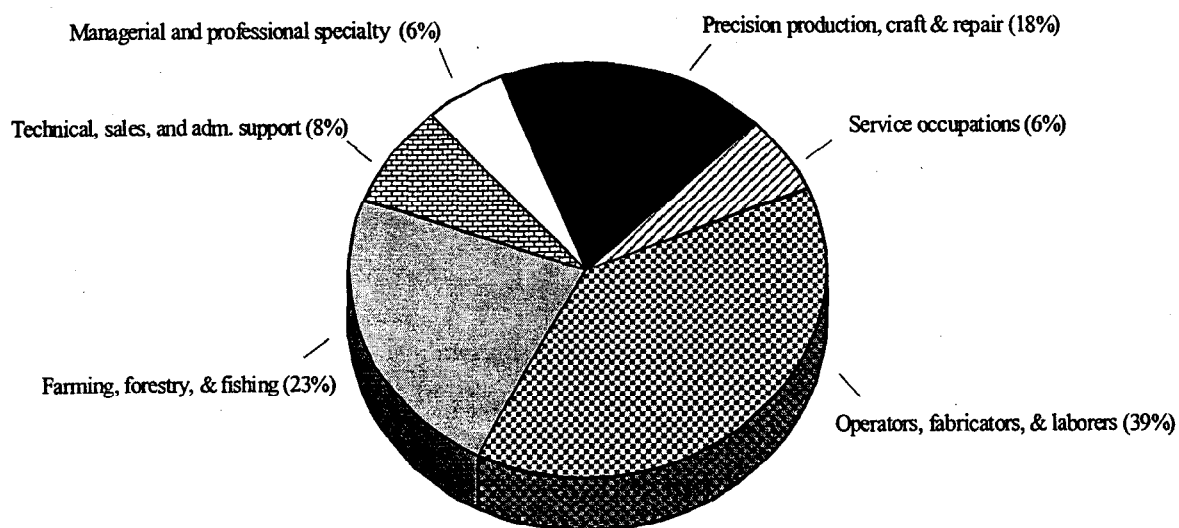
## **OCCUPATION**

Operators, fabricators, and laborers, experienced the most occupational fatalities with 34 deaths, or 40% in 1999. Transportation and material moving occupations accounted for almost half of the fatalities with 18, of which 14 were truck drivers. Handlers, equipment cleaners, helpers, and laborers accounted for 10 of the 34 fatal occupational injuries with 4 out of the 10 being in construction, while laborers, except construction also claimed 4 out of the 10 lives. Machine operators, assemblers, and inspectors claimed 6 lives. Four of the 6 workers were machine operators, and assorted materials. (Chart 8, Table 4)

Ranking second, the farming, forestry, and fishing occupations had 20 fatal occupational injuries in 1999, accounting for 23% of the total. Farming operators and managers, accounted for 16 of the 20 fatal injuries. Other agricultural and related occupations claimed the remaining 4 lives. (Chart 8, Table 4)

Precision production, craft, and repair occupations ranked third with 16 of the 87 fatal occupational injuries in 1999. Construction trade workers suffered 8 of the 16 fatalities, while mechanics and repairers, and precision production occupations both accounted for the remaining 4 deaths. (Chart 8, Table 4)

**Chart 8. Fatal Occupational Injuries by Occupation**  
Kansas, 1999



Technical, sales, and administrative support occupations suffered 7 occupational fatalities in 1999. Four of the 7 fatalities were in technical and related support occupations. (Chart 8, Table 4)

Managerial and professional specialty and service occupations both had the fewest work related deaths within the occupational category with 5 fatal injuries in 1999. Managerial and professional specialty occupation lost 3 out of the 5 lives to executive, administrative, and managerial occupations. Service occupations also lost 3 of the 5 lives, but to protective service occupations. (Chart 8, Table 4)

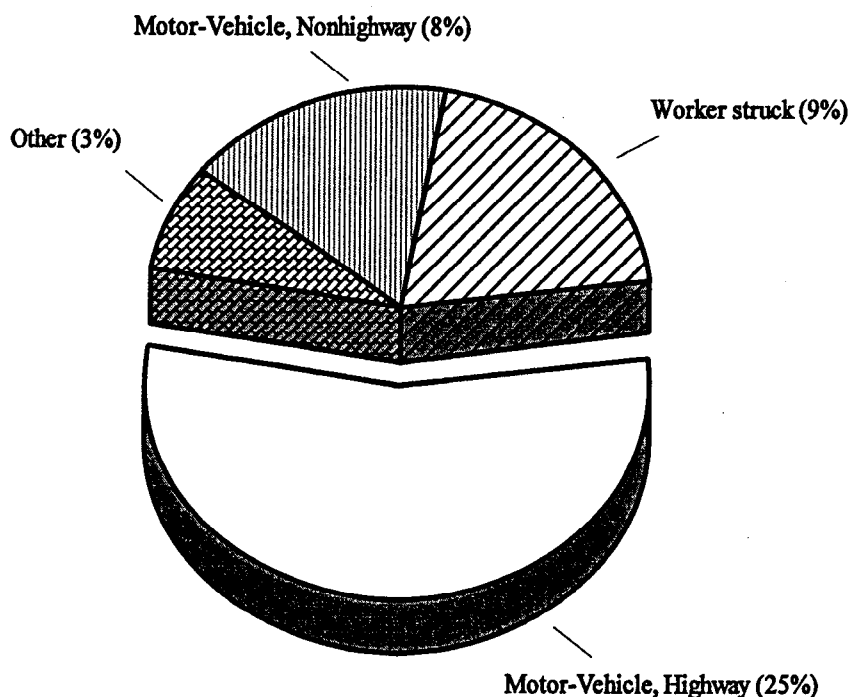
### **EVENT or EXPOSURE**

The event claiming the most lives lost due to occupational injuries was once again transportation events, with 40 work-related deaths. Highway fatalities claimed 22 worker's lives in 1999. Ten were from collisions between vehicles, and 10 were from noncollision accidents. (Chart 9, Chart 10, Table 7)

Non-highway accidents (farm, industrial premises) claimed the lives of 7 workers in 1999 all of which were noncollision accidents, 5 of those 7 occurred when a vehicle overturned. (Chart 9, Chart 10, Table 7)

There were 8 workers whose lives were claimed when the worker was struck by a vehicle or mobile equipment, 5 of those 8 occurred in the roadway and 3 of the 8 in a parking lot or non-road area. (Chart 9, Chart 10, Table 7)

**Chart 9. Transportation Deaths by Type and Place  
Kansas, 1999**



Nineteen Kansas workers were fatally injured by having contact with objects and/or equipment in 1999. Being struck by an object claimed 12 workers and 8 of those were struck by a falling object. Five employees were fatally injured by being caught in or compressed by equipment or objects. (Chart 10, Table 7)

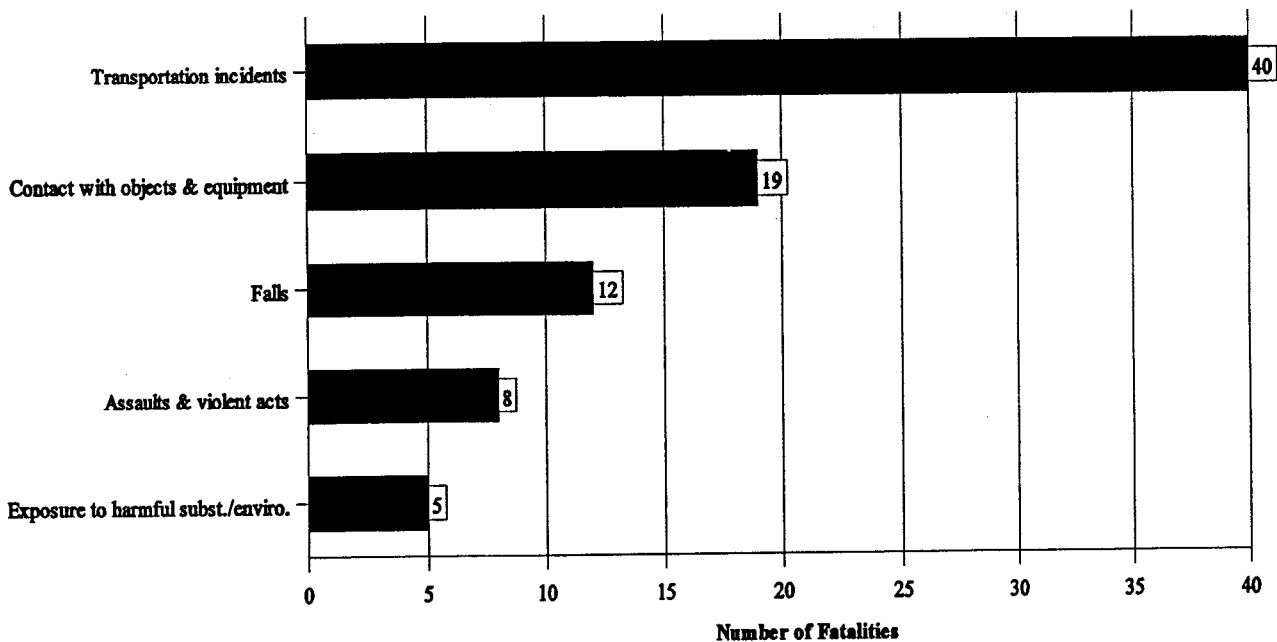
Falls ranked third as the most common cause of occupational fatalities in 1999, with 12 deaths, of which 10 of those fell to a lower level. Falls can be categorized into the following groups; fall unspecified, fall to lower level, jump to lower level, fall on same level, and falls n.e.c. (Chart 10, Table 7)

Exposure to harmful substances or environments claimed the lives of 5 workers in 1999. Three of those 5 came in contact with an electric current. (Chart 10, Table 7)

Assaults and violent acts claimed the lives of 8 workers in 1999. Four of the 8 deaths were from homicides, while 3 of the 8 were suicides. (Chart 10, Table 7)

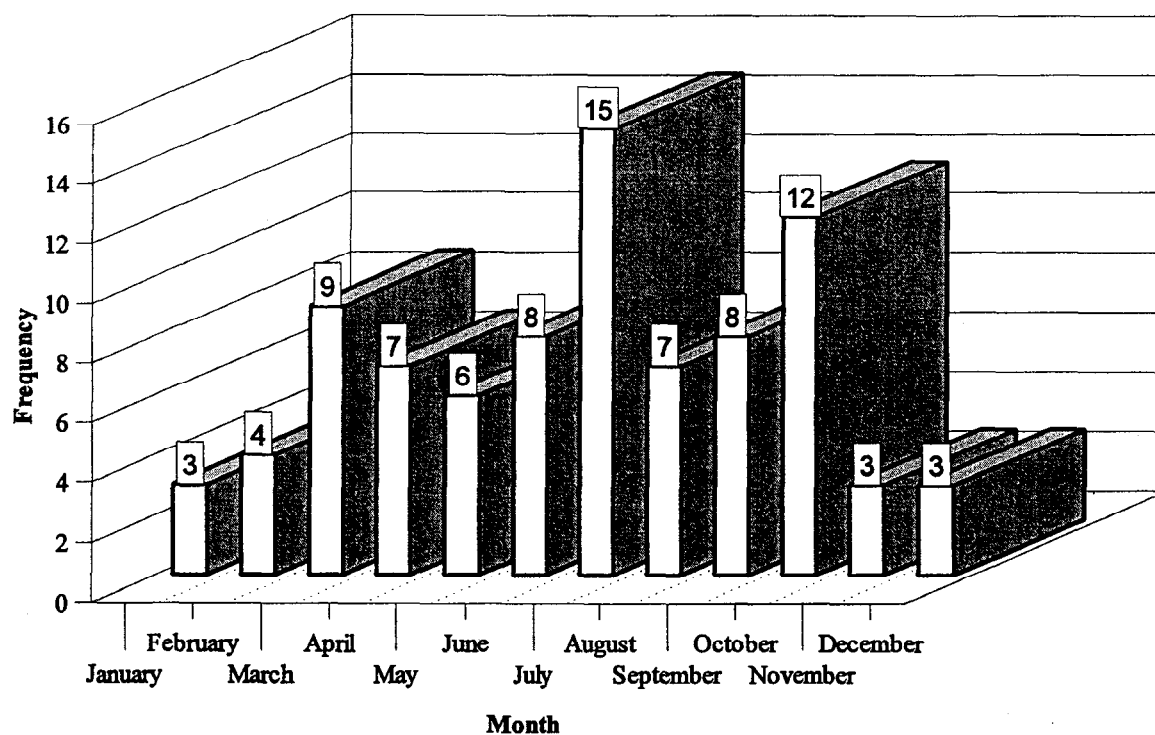
**Chart 10. Fatal Occupational Injuries by Event\* or Exposure**

**Kansas, 1999**

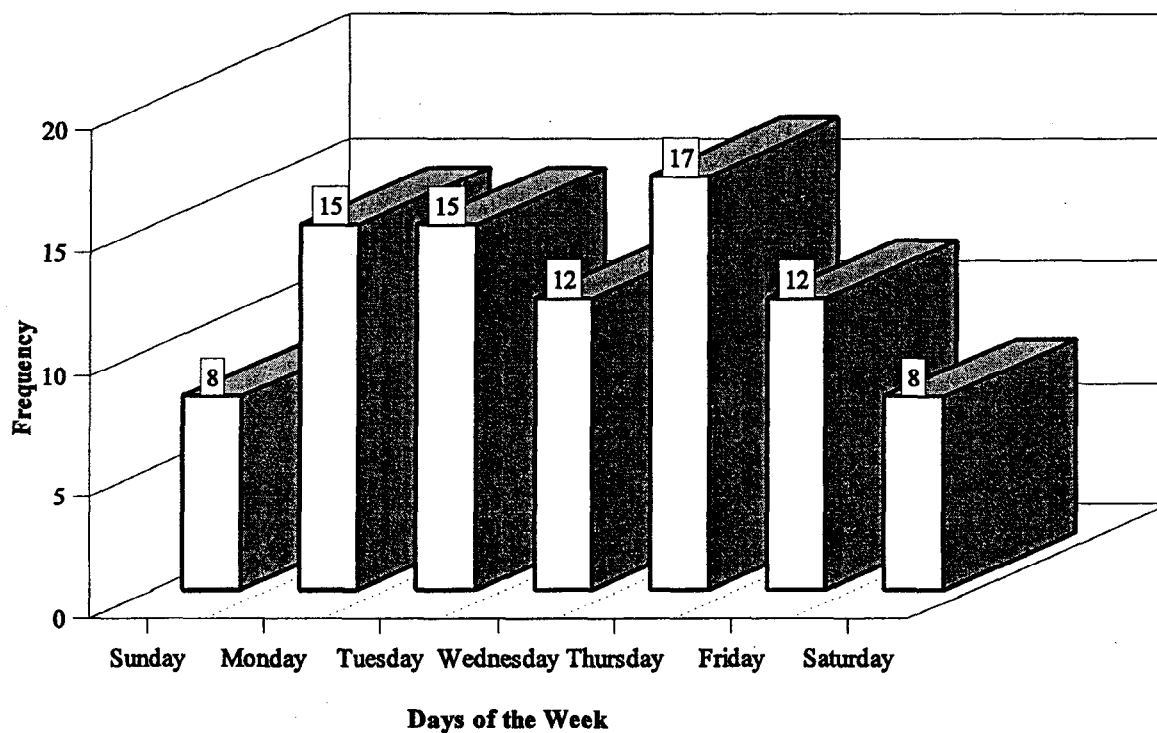


\*Based on the 1992 BLS Occupational Injury and Illness Classification Manual.

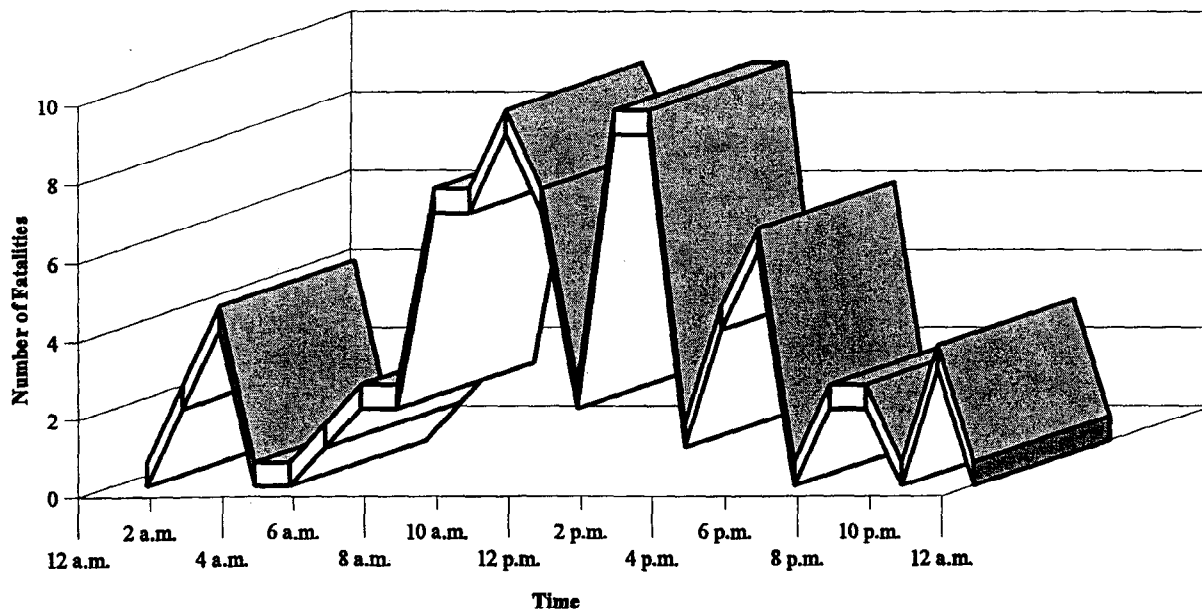
**Chart 11. Fatal Occupational Injuries by Month of Injury**  
**Kansas, 1999**



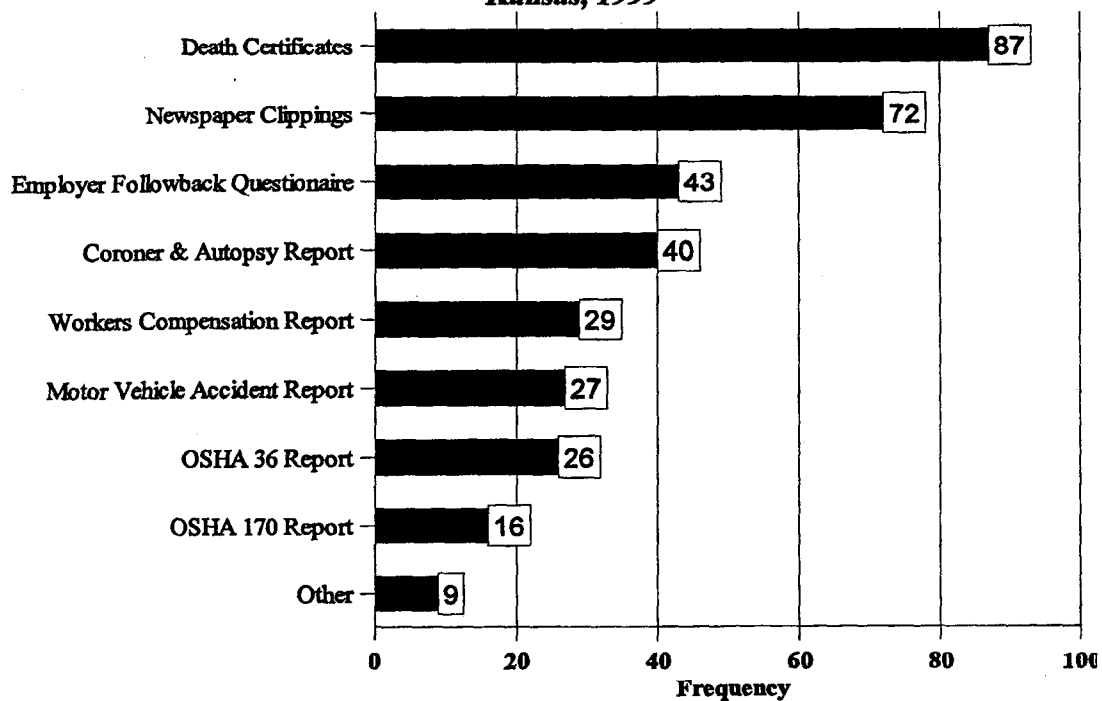
**Chart 12. Fatal Occupational Injuries by Day of the Week**  
**Kansas, 1999**



**Chart 13. Fatal Occupational Injuries by Time of Injury**  
**Kansas, 1999**



**Chart 14. Number of Source Documents by Type**  
**Kansas, 1999**



Average number of source documents was 4.011 confirming sources per case.



## **SECTION II**

### **TABLES**

**Table 1. Fatal Occupational Injuries by Selected Characteristics  
Kansas, 1999**

Worker Characteristics	Fatalities	
	Number	Percent
<b>Total</b> .....	<b>87</b>	<b>100</b>
<b>Employee Status</b>		
Wage and salary workers* .....	60	69
Self-employed** .....	27	31
<b>Sex</b>		
Men .....	84	97
Women .....	3	3
<b>Age</b>		
Under 20 years .....	3	3
20 to 24 years .....	4	5
25 to 34 years .....	15	17
35 to 44 years .....	15	17
45 to 54 years .....	16	18
55 to 64 years .....	14	16
65 years and over .....	20	23
<b>Race</b>		
White .....	77	89
Other .....	10	11
<b>Hispanic origin</b>		
Hispanic*** .....	5	6

\*May include volunteers and other workers receiving compensation.

\*\*Includes paid and unpaid family workers, and may include owners of incorporated businesses, or members of partnerships.

\*\*\*Persons identified as Hispanic may be of any race.

**NOTE:** Totals for major categories may include subcategories not shown separately. Percentages may not add to totals because of rounding.

**SOURCE:** Center for Health and Environmental Statistics, Kansas Department of Health and Environment, in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor.

**Table 2. Fatal Occupational Injuries by Industry  
Kansas, 1991 - 1999**

<b>Industry*</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
<b>Total .....</b>	<b>86</b>	<b>82</b>	<b>99</b>	<b>106</b>	<b>95</b>	<b>85</b>	<b>93</b>	<b>98</b>	<b>87</b>
<b>Private Industry .....</b>	<b>80</b>	<b>73</b>	<b>86</b>	<b>93</b>	<b>78</b>	<b>76</b>	<b>85</b>	<b>90</b>	<b>82</b>
<b>Agriculture, forestry, and fishing .....</b>	<b>23</b>	<b>23</b>	<b>36</b>	<b>23</b>	<b>17</b>	<b>18</b>	<b>22</b>	<b>23</b>	<b>22</b>
<b>Mining .....</b>	<b>7</b>	<b>3</b>	<b>8</b>	<b>6</b>	<b>6</b>	<b>-</b>	<b>7</b>	<b>3</b>	<b>-</b>
<b>Construction .....</b>	<b>15</b>	<b>8</b>	<b>10</b>	<b>16</b>	<b>20</b>	<b>19</b>	<b>13</b>	<b>18</b>	<b>13</b>
<b>Manufacturing .....</b>	<b>8</b>	<b>12</b>	<b>3</b>	<b>7</b>	<b>9</b>	<b>7</b>	<b>9</b>	<b>6</b>	<b>10</b>
<b>Transportation &amp; public utilities .....</b>	<b>13</b>	<b>11</b>	<b>14</b>	<b>13</b>	<b>9</b>	<b>11</b>	<b>17</b>	<b>9</b>	<b>15</b>
<b>Wholesale trade .....</b>	<b>3</b>	<b>3</b>	<b>-</b>	<b>5</b>	<b>3</b>	<b>7</b>	<b>4</b>	<b>7</b>	<b>8</b>
<b>Retail trade .....</b>	<b>6</b>	<b>5</b>	<b>5</b>	<b>15</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>7</b>	<b>-</b>
<b>Finance, insurance, &amp; real est.</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3</b>	<b>-</b>
<b>Services .....</b>	<b>5</b>	<b>7</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>10</b>	<b>9</b>	<b>12</b>	<b>10</b>
<b>Government** .....</b>	<b>6</b>	<b>9</b>	<b>13</b>	<b>13</b>	<b>17</b>	<b>9</b>	<b>8</b>	<b>8</b>	<b>5</b>

\*Standard Industrial Classification Manual, 1987 Edition.

\*\*Includes fatalities to workers employed by governmental organizations regardless of industry.

NOTE: A ( - ) indicates no data or data does not meet publication criteria.

NOTE: Totals for major categories may include subcategories not shown separately. Percentages may not add up to totals because of rounding.

SOURCE: Center for Health and Environmental Statistics, Kansas Department of Health and Environment, in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor.

**Table 3. Fatal Occupational Injuries by Industry  
Kansas, 1999**

Industry*	Fatalities	
	Number	Percent
<b>Total</b> .....	<b>87</b>	<b>100</b>
Private Industry .....	82	94
<b>Agriculture, forestry, and fishing</b> .....	<b>22</b>	<b>25</b>
Agriculture production - crops .....	16	18
General farms, primarily crop .....	15	17
Agriculture production - livestock .....	4	5
Livestock, except dairy and poultry .....	3	4
<b>Construction</b> .....	<b>13</b>	<b>15</b>
Heavy construction, except building .....	3	4
Special trades contractors .....	10	12
Miscellaneous special trade contractors .....	3	4
<b>Manufacturing</b> .....	<b>10</b>	<b>12</b>
<b>Transportation and public utilities</b> .....	<b>15</b>	<b>17</b>
Trucking and warehousing .....	10	12
Trucking and courier services, except air .....	9	10
Local trucking, without storage .....	3	3
Trucking, except local .....	6	7
Electric, gas, and sanitary services .....	3	4
<b>Wholesale trade</b> .....	<b>8</b>	<b>9</b>
Wholesale trade- durable goods .....	4	5
Wholesale trade- nondurable goods .....	4	5
<b>Services</b> .....	<b>10</b>	<b>12</b>
Business services .....	3	4
Auto repair, services, and parking .....	3	4
<b>Government**</b> .....	<b>5</b>	<b>6</b>

\*Standard Industrial Classification Manual, 1987.

\*\*Includes fatalities to workers employed by governmental organizations regardless of industry.

**SOURCE:** Center for Health and Environmental Statistics, Kansas Department of Health and Environment, in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor.

**NOTE:** Totals for major categories may include subcategories not shown separately. Percentages may not add to totals because of rounding.

**Table 4. Fatal Occupational Injuries by Occupation  
Kansas, 1999**

Occupation*	Fatalities	
	Number	Percent
<b>Total</b> .....	<b>87</b>	<b>100</b>
<b>Managerial and professional specialty occupations</b> .....	<b>5</b>	<b>6</b>
Executive, Administrative, and Managerial occupations .....	3	3
<b>Technical, sales, and administrative support</b> .....	<b>7</b>	<b>8</b>
Technical and related support occupations .....	4	5
Sales occupations .....	3	3
<b>Service occupations</b> .....	<b>5</b>	<b>6</b>
Protective service occupations .....	3	3
<b>Farming, forestry, and fishing</b> .....	<b>20</b>	<b>23</b>
Farming operators and managers .....	16	18
Farmers, except horticultural .....	14	17
Other agricultural and related occupations .....	4	5
Farm occupations, except managerial .....	4	5
Farm workers .....	4	5
<b>Precision production, craft, and repair</b> .....	<b>16</b>	<b>18</b>
Mechanics and repairers .....	4	5
Mechanics and repairers, except supervisors .....	4	5
Vehicle and mobile equipment mechanics, repairers .....	3	4
Construction trades .....	8	9
Construction trades, except supervisors .....	8	9
Carpenters and apprentices .....	3	4
Precision production occupations .....	4	5
<b>Operators, fabricators, and laborers</b> .....	<b>34</b>	<b>40</b>
Machine operators and tenders, except precision .....	6	7
Machine operators, assorted materials .....	4	5
Transportation and material moving occupations .....	18	21
Motor vehicle operators .....	17	20
Truck drivers .....	14	17
Handlers, equipment cleaners, helpers, and laborers .....	10	12
Construction laborers .....	4	5
Laborers, except construction .....	4	5

\*Based on the 1990 Occupational Classification System developed by the Bureau of the Census.

**NOTE:** Totals for major categories may include subcategories not shown separately. Percentages may not add to totals because of rounding.

**SOURCE:** Center for Health and Environmental Statistics, Kansas Department of Health and Environment, in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor.

**Table 5. Fatal Occupational Injuries by Nature of Injury  
Kansas, 1999**

Nature of Injury	Fatalities	
	Number	Percent
<b>Total</b> .....	<b>87</b>	<b>100</b>
<b>Traumatic injuries and disorders</b> .....	<b>87</b>	<b>100</b>
Traumatic injuries to bones, nerves, spinal cord .....	-	-
Fractures .....	-	-
<b>Open wounds</b> .....	<b>4</b>	<b>5</b>
Gunshot wounds .....	3	3
<b>Burns</b> .....	<b>4</b>	<b>5</b>
Heat burns, scalds .....	4	5
<b>Intracranial injuries</b> .....	<b>22</b>	<b>26</b>
Multiple intracranial injuries .....	21	24
<b>Effects of environmental conditions</b> .....	-	-
Effects of heat and light .....	-	-
<b>Multiple traumatic injuries and disorders</b> .....	<b>24</b>	<b>28</b>
Intracranial injuries and injuries to internal organs .....	23	26
<b>Other traumatic injuries and disorders</b> .....	<b>28</b>	<b>32</b>
Asphyxiations/strangulations, suffocations .....	3	3
Electrocutions, electric shocks .....	3	3
Internal injuries to organs and blood vessels of the trunk .....	21	24

**NOTE:** Totals for major categories may include subcategories not shown separately. Dashes indicate no data or data did not meet publication criteria. Percentages may not add to totals due to rounding.

**SOURCE:** Center for Health & Environmental Statistics, Kansas Department of Health and Environment in cooperation with the Bureau of Labor Statistics.

**Table 6. Fatal Occupational Injuries by Part of Body  
Kansas, 1999**

Part of Body	Fatalities	
	Number	Percent
<b>Total</b> .....	<b>87</b>	<b>100</b>
<b>Head</b> .....	<b>26</b>	<b>30</b>
Cranial region, including skull .....	24	28
Brain .....	23	26
Multiple head locations .....	-	-
<b>Trunk</b> .....	<b>21</b>	<b>24</b>
Chest, except internal locations of diseases or disorders .....	6	7
Chest, including ribs, internal organs .....	6	7
Abdomen .....	-	-
Abdomen, except internal location of diseases or disorders .....	-	-
Multiple trunk locations .....	10	12
<b>Body systems</b> .....	<b>9</b>	<b>10</b>
<b>Multiple body parts</b> .....	<b>28</b>	<b>32</b>

**NOTE:** Totals for major categories may include subcategories not shown separately. Dashes indicate no data or data does not meet publication criteria. Percentages may not add to total because of rounding.

**SOURCE:** Center for Health & Environmental Statistics, Kansas Department of Health and Environment in cooperation with the Bureau of Labor Statistics.

**Table 7. Fatal Occupational Injuries by Event or Exposure  
Kansas, 1999**

Event*or Exposure	Fatalities	
	Number	Percent
<b>Total</b> .....	<b>87</b>	<b>100</b>
<b>Transportation incidents</b> .....	<b>40</b>	<b>46</b>
Highway .....	22	25
Collision between vehicles, mobile equipment .....	10	12
Moving in opposite directions, oncoming .....	6	7
Moving in intersection .....	3	4
Noncollision .....	10	12
Jack-knifed or overturned--no collision .....	10	12
Nonhighway (farm, industrial premises) .....	7	8
Noncollision accident .....	7	8
Overturned .....	5	6
Worker struck by vehicle, mobile equipment .....	8	9
Worker struck in roadway .....	5	6
Worker struck in parking lot or non-road area .....	3	3
<b>Assaults and violent acts</b> .....	<b>8</b>	<b>9</b>
Homicides .....	4	5
Self-inflicted injury .....	3	3
Suicide, attempted suicide .....	3	3
<b>Contact with objects and equipment</b> .....	<b>19</b>	<b>22</b>
Struck by object .....	12	14
Struck by falling object .....	8	9
Caught in or compressed by equipment or objects .....	5	6
Caught in or compressed by equipment or objects, n.e.c. ....	4	5
<b>Falls</b> .....	<b>12</b>	<b>14</b>
Fall to lower level .....	10	12
Fall to lower level, n.e.c. ....	6	7
<b>Exposure to harmful substances or environments</b> .....	<b>5</b>	<b>6</b>
Contact with electric current .....	3	3

\*Based on the 1992 BLS Occupational Injury and Illness Classification Structures.

\*\*Includes fatalities that are not considered to be "permit required" confined spaces as defined by the Occupational Safety and Health administration in its regulation of these structures.

**NOTE:** Totals for major categories may include subcategories not shown separately. Percentages may not add to totals because of rounding.

**SOURCE:** Center for Health and Environmental Statistics, Kansas Department of Health and Environment, in cooperation with the Bureau of Labor Statistics, U.S. Department of Labor.



**Table 8. Fatal Occupational Injuries by Source of Injury  
Kansas, 1999**

Source of Injury	Fatalities	
	Number	Percent
<b>Total</b> .....	<b>87</b>	<b>100</b>
<b>Chemicals and Chemical Products</b> .....	-	-
Chemical products-general .....	-	-
Drugs, alcohol, medicines .....	-	-
<b>Containers</b> .....	-	-
Containers -- variable restraint .....	-	-
Bundles, bales .....	-	-
<b>Furniture and fixtures</b> .....	-	-
Other fixtures .....	-	-
Lighting equipment .....	-	-
<b>Machinery</b> .....	<b>3</b>	<b>4</b>
Agricultural and garden machinery .....	-	-
Harvesting and threshing machinery .....	-	-
Construction, logging, and mining machinery .....	-	-
Road grading and surfacing machinery .....	-	-
Special process machinery .....	-	-
Other special process machinery .....	-	-
<b>Parts and materials</b> .....	<b>4</b>	<b>5</b>
Building materials -- solid elements .....	-	-
Pipes, ducts, tubing .....	-	-
Structural metal materials .....	-	-
Machine, tool, and electric parts .....	-	-
Electric parts .....	-	-
Vehicle and mobile equipment parts .....	-	-
Tires, inner tubes, wheels .....	-	-

**Table 8. Fatal Occupational Injuries by Source of Injury, continued  
Kansas, 1999**

Source of injury	Fatalities	
	Number	Percent
<b>Persons, plants, animals, and minerals .....</b>	<b>7</b>	<b>8</b>
Animals and animal products .....	-	-
Mammals, except humans .....	-	-
Food products -- fresh or processed .....	-	-
Grains, grain mill products .....	-	-
Nonmetallic minerals, except fuel .....	-	-
Rocks, crushed stone .....	-	-
Person -- other than injured or ill worker .....	-	-
Co-worker, former co-worker of injured or ill worker .....	-	-
Person -- other than injured or ill worker, n.e.c. ....	-	-
Plants, trees, vegetation - not processed .....	-	-
Cash grain crops .....	-	-
<b>Structures and surfaces .....</b>	<b>13</b>	<b>15</b>
Floors, walkways, and ground surfaces .....	11	13
Floors .....	4	5
Ground .....	5	6
Other floors, walkways, ground surfaces .....	-	-
Other structural elements .....	-	-
Gates .....	-	-
Structures .....	-	-
Bridges, dams, locks .....	-	-
<b>Tools, instruments, and equipment .....</b>	<b>-</b>	<b>-</b>
Hand tools -- non powered .....	-	-
Turning hand tools- non powered .....	-	-

**Table 8. Fatal Occupational Injuries by Source of Injury, continued  
Kansas, 1999**

Source of injury	Fatalities	
	Number	Percent
<b>Vehicles</b> .....	<b>47</b>	<b>54</b>
Air vehicle .....	-	-
Aircraft -- powered fixed wing .....	-	-
Highway vehicle, motorized .....	36	41
Automobile .....	4	5
Motorcycle, moped .....	-	-
Truck .....	28	32
Van -- passenger or light delivery .....	3	3
Plant and industrial powered vehicles, tractors .....	7	8
Tractor .....	6	7
Plant and industrial powered vehicle, n.e.c. ....	-	-
Rail vehicle .....	-	-
Train .....	-	-
<b>Other sources</b> .....	<b>7</b>	<b>8</b>
Ammunition .....	3	4
Bullets .....	-	-
Pellets .....	-	-
Atmospheric and environmental conditions .....	4	5
Fire, flame, smoke .....	-	-
Temperature extremes - environmental .....	-	-
<b>Unknown</b> .....	<b>-</b>	<b>-</b>

**NOTE:** Totals for major categories may include subcategories not shown separately. Dashes indicate no data or data does not meet publication criteria. Percentages may not add up to totals due to rounding.

**SOURCE:** Center for Health & Environmental Statistics, Kansas Department of Health and Environment in cooperation with the Bureau of Labor Statistics

## **SECTION III**

## **APPENDIX**

## SCOPE OF CFOI DATA

The CFOI program includes the private sector, public sector, military, self-employed, and certain volunteers. To be included, an incident that resulted in death must have occurred in the reference state (in this case, Kansas) during the reference year (in this case, 1999), and must be work-related. If the incident occurred in a neighboring state but the death occurred in Kansas it is the neighboring state's responsibility to publish that occurrence. In the CFOI program a fatality is considered work-related only if the deceased was working for pay or other compensation at the time of the incident. Additionally, the deceased must be on the employer's premises, or, if at a different site, engaged in a work activity or present there as a condition of employment. Though the focus is primarily on injury-related deaths, illnesses that are determined to be work-related or that occur at work, such as heart attacks, are also considered to be within the scope of the program therefore information pertaining to fatal illnesses that are recognized to be work related, or which occur at work, are also gathered by CFOI but not published in this publication. CFOI criteria are generally broader than the criteria used by Federal and State agencies administering specific laws and regulations.

## COLLECTION METHODS

The CFOI program produces a single, reliable census of workplace fatalities. Currently, annual estimates of the national work related fatalities range between 3,000 and 11,000 deaths per year. Reasons for this wide range of estimates can be explained by difference in statistical methods. In most cases the estimate is based on a single source document, such as the worker's compensation reports which by definition exclude self-employed, government employees, and other specified sectors of the labor force.

To insure that fatalities are work related, cases are researched from different sources until a work relationship is either determined or rejected. Two or more independent source documents or a source and a follow-up questionnaire must document each case. Organizations providing source documents for the CFOI program and the documents they provide include: Kansas Department of Health and Environment, Kansas death certificates; Kansas Department of Human Resources, Division of Worker's Compensation, fatal workers compensation reports; Occupational Safety and Health Administration, OSH-36 and OSH-170 reports; county coroners in Kansas, autopsy reports, coroners reports, and toxicology reports; clipping service, newspaper clippings; and Kansas law enforcement agencies, police reports. Cases identified as in-scope are coded in detail, providing information on approximately thirty data elements collected, including information about the worker, the fatal incident, the machinery or equipment involved and the circumstances surrounding the accident.

### Definitions and Classification Sources

The CFOI program uses the following classification systems to code/classify data elements collected.

- *Alphabetical Index of Industries and Occupations, 1990 Census of Population*, published by the U.S. Department of Commerce, Bureau of the Census, to classify the occupation of the decedent.
- *Federal Information Processing Standards (FIPS) codes*, to classify geographic location where the event or exposure occurred.
- *The Occupational Safety and Health Classification Code Structure* developed by the U.S. Bureau of Labor Statistics, to classify the following:

Nature of injury:	Identifies the physical characteristics of the injury.
Part of body:	Identifies the part(s) of the body or the body system directly affected by the nature of injury.
Event or exposure:	Describes the manner in which the fatal injury was produced or inflicted by the source of the fatal injury.
Source of injury:	Identifies the object, substance, bodily motion, or the exposure which directly produced or inflicted the injury.
Secondary source:	Identifies the object, substance, or person that generated the source of the fatal injury or contributed to the event or exposure.

- *Standard Industrial Classification Manual, 1987 Edition*, published by the Office of Management and Budget, Executive Office of the President, is used to classify the industry of the employer. A business is assigned a specific industry on the basis of its principal commodity produced or distributed, or service rendered.

**This Report Was Prepared by:**

**Center for Health and Environmental Statistics  
Lorne A. Phillips, Ph.D., Director and State Registrar**

**Office of Health Care Information  
Elizabeth W. Saadi, Ph.D., Director**

**Author: Rachelle L. Hazelton**

**Editor: Charles Crevoiserat**

**Reviewers: Elizabeth W. Saadi, Ph.D., and Lorne A. Phillips, Ph.D.**

